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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/288,943	04/09/1999	STEVE INGISTOV	ARCO-25.195	8048

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CAROL WILSON
BP AMERICA INC.
MAIL CODE 5 EAST
4101 WINFIELD ROAD
WARRENVILLE, IL 60555

EXAMINER

KWON, JOHN

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 07/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/288,943	INGISTOV, STEVE
	Examiner	Art Unit
	John T. Kwon	3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____ .
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.
- Disposition of Claims**
- 4) Claim(s) 32-52 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 32-52 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____ .
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard (US 5,630,590). Bouchard discloses a brush seal (60) mounted on a non-rotating member (22) in tandem with a knife edge seal in a conventional gas turbine engine for an electrical power generator (col. 2, lines 39-40). The brush seal comprises a ring holder (52), a multiplicity of bristle members (66) extending radially inwardly from the holder, and means for fastening the holder (54). The difference between the prior art reference and the instant invention is the specified clearance of the bristle of the brush seal at the ambient temperature. It would have been considered to be an obvious choice of mechanical design because one skilled in this art is familiar with basic fluid mechanic and normally has the laboratory test facilities. To optimize or select the suitable clearance would be within the ability of ordinary skilled in this art.

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3. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson (US 5,308,088). Atkinson discloses a brush seal (20) mounted on a non-rotating member (12) in a gas turbine engine. The brush seal comprises a ring holder (14), a multiplicity of bristle members (20) extending radially inwardly from the holder, and means for fastening the holder (13). Moreover, Atkinson discloses a safety margins of the clearance of the brush seal (Col. 1, lines 55-60 and Col. 2, line 54 - Col. 3, line 9). The difference between the prior art reference and the instant invention is the specified clearance of the brush seal at the ambient temperature. It would have been considered to be an obvious choice of mechanical design because one skilled in this art is familiar with basic fluid mechanic and normally has the laboratory test facilities. To optimize or select the suitable clearance would be within the ability of ordinary skilled in this art. Although Atkinson does not disclose the specific location of the brush seal in the gas turbine engine, the seal can be located at the last stage of the compressor since the installation of the seal in the compressor stage is known in the art.

(The rejection of claims 42-52 is purposely separated from the rejection in paragraph 2. This rejection is the same as the office action mailed June 4, 1998, 08/892,738)

4. Claim 42-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard (US 5,630,590). Bouchard discloses a gas turbine engine with a brush seal (60) for restricting air passage into the chamber from a compressor. The difference between the prior art reference and the instant invention is the specific dimension for the seal clearance. In regard to the claimed

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particular dimension for the brush seal clearance, one skilled in the art is familiar with fluid mechanic and is aware of the necessity to design the seal for a maximum efficiency as well as the durability as major factors. Therefore, to optimize or select the suitable dimension for the clearance is within the ability of one of ordinary skill in the art. If such dimensional relationship is critical, the applicant has the burden of providing such criticality. In re Swenson et al, 30 CCPA 809, 132 F.2d 1020, 56 USPQ 372; In re Scherl, 33 CCPA 1193, 156 F.2d 72, 70 USPQ 204.

Claim Rejections - 35 USC § 135 (b)

5. Claims 32-40 are rejected under 35 U.S.C. 135(b) as not being made prior to one year from the date on which U.S. Patent No. 5,630,590 was granted.

The copied claims were submitted on the filing date of the instant application (April 9, 1999) which is not within one year of the issue date of Patent No. 5,630,590 (issue date: May 20, 1997). The proposed interference by the applicant is not granted unless the applicant claimed "substantially the same subject matter" within one year of the issue date of the patent. See MPEP 2307. In order for an application claim to be for "substantially the same subject matter" as a patent claim, it must contain all the material limitations of the patent claim. Parks v. Fine, 773 F.2d 1577, 227 USPQ 432 (Fed. Cir. 1985), modified, 783 F.2d 1036, 228 USPQ 677 (1986). The fact that the application claim may be broad enough to cover the patent claim is not sufficient. In re Frey, 182 F.2d 184, 86 USPQ 99 (CCPA 1950). If none of the claims which

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were present in the application, or in a parent application, prior to expiration of the one-year period meets the “substantially for the same subject matter” test, the claims presented or identified as corresponding to the proposed count should be rejected under 35 U.S.C. 135(b). In re McGrew, 120 F.3d 1236, 43 USPQ 2d 1632 (Fed. Cir. 1997).

Accordingly, a **brush seal** mounted on the refurbished component **in tandem with the knife edge seal** in a refurbished gas turbine engine component was not claimed. The copied claims 32-40 appeared in the application 09/288,943 filed April 9, 1999, was filed more than one year of US Patent No. 5,630,590 was granted.

Response to Arguments

6. Applicant's arguments filed May 23, 2003 have been fully considered but they are not persuasive.

Regarding claim 41, the examiner believes that claim 41 (of the applicant's) and claim 1 of Bouchard (US 5,630,590) are different scope of the inventions because Bouchard (of US 5,630,590) relied upon the arrangement of the seals such as a brush seal in tandem with a knife seal, while the claim 41 (of the applicant's) relied upon the clearance of the bristles of the brush seal at the ambient temperature. Since two inventions are different, the applicant may overcome the rejection by submitting the affidavit (see MPEP 706.02(b), overcoming a 35 U.S.C. 102 Rejection Based on a Printed Publication or Patent).

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Applicants assert that, since Atkinson (of US 5,308,088) teaches a turbine for aircraft industry and applicant's invention is directed to a gas turbine for power plant, this difference renders applicants' invention patentable. This argument fails because **limitations found in a preamble** are not afforded the effect of a distinguishing limitation unless the body of the claim sets forth the structure which refers back to the preamble. *In re Casey*, 152 USPQ 235, (CCPA 1967). *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Since the scope of claim 41 is different from Bouchard, the Group director's approval is not required. Claims 32-40 of the instant application are not being rejected over the prior art.

The applicant further assert that the brush seal have not been applied to existing large power plant turbine, nor the location of the seal, i.e., mounted on a rotor, this difference renders applicants' invention patentable. The examiner disagreed because the test for the teaching or the obviousness of a references is what the reference would teach one skilled in the art and not whether its structure could be bodily substitute in the basic reference structure.

Regarding claims 32-40, the applicant asserted that claims should be granted as earlier filing date as filed May 31, 1996 because it is a continuations of the applications. Examiner disagrees because **such claims has not introduced until the application of 09/288,943 was filed on April 9, 1999, which is more than one year after US Patent No. 5,630,590 was granted** (see MPEP 2307). In other words, the preliminary amendment containing such

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limitation (of claims 32-40) filed on April 9, 1999 cannot have a benefit of the earlier filing date in terms of declaring the interference. (The applicant should have filed such claims before/on May 20, 1998 in order to declare the interference.)

Contact Information

Any inquiry concerning this communication should be directed to Examiner Kwon at telephone number (703) 308-1046 and facsimile numbers (703) 308-7766. The examiner can normally be reached on Monday thru Friday from 8:30 AM to 5:00 PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.



John T. Kwon
Primary Examiner
Art Unit 3747

July 22, 2003